Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-40 (Cancelled).

41 (Previously Presented). A method for inhibiting abnormal cell proliferation in a subject in need thereof, comprising administering to the subject an amount of an A3-selective adenosine A3 receptor agonist (A3RAg), in a manner such that it exerts is prime effect through the adenosine A3 receptor, the amount being effective to selectively inhibit abnormal cell proliferation.

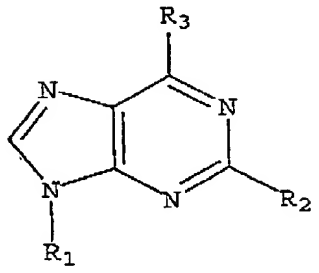
42 (Original). A method according to Claim 41, for inhibiting growth or proliferation of tumor cells.

43 (Cancelled)

44 (Previously Presented). A method according to Claim 41, wherein the drug is administered orally.

45 (Original). A method according to Claim 41, wherein the drug is administered in combination with a chemotherapeutic drug.

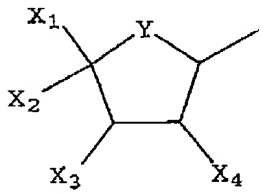
46 (Previously Presented). A method according to Claim 41, wherein said active ingredient is an A3-selective A3RAg that is a nucleoside derivative of the following general formula (I):



(I)

wherein

- R_1 is C_1-C_{10} alkyl, C_1-C_{10} hydroxyalkyl, C_1-C_{10} carboxyalkyl or C_1-C_{10} cyanoalkyl or a group of the following general formula (II):



(II)

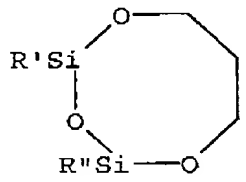
in which:

- Y is an oxygen or sulfur atom or CH_2;

- X_1 is H, C_1-C_{10} alkyl, $R^aR^bNC(=O)$- or HOR^c-, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl or are joined together to form a heterocyclic ring containing two to five carbon atoms, and R^c is selected from the group consisting of C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl;

- X_2 is H, hydroxyl, C_1-C_{10} alkylamino, C_1-C_{10} alkylamido or C_1-C_{10} hydroxyalkyl;

- X_3 and X_4 each independently are hydrogen, hydroxyl, amino, amido, azido, halo, alkyl, alkoxy, carboxy, nitrilo, nitro, trifluoro, aryl, alkaryl, thio, thioester, thioether, -OCOPh, -OC(=S)OPh or both X_3 and X_4 are oxygen connected to >C=S to form a 5-membered ring, or X_2 and X_3 form the ring of formula (III):



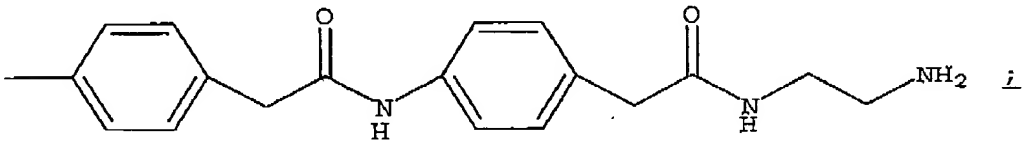
(III)

where R' and R'' are independently C_1-C_{10} alkyl;

- R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkylether, amino, hydrazido, C_1-C_{10} alkylamino, C_1-C_{10} alkoxy, C_1-C_{10} thioalkoxy, pyridylthio, C_2-C_{10} alkenyl; C_2-C_{10} alkynyl, thio, and C_1-C_{10} alkylthio; and

- R_3 is a $-NR_4R_5$ group with R_4 being hydrogen, alkyl, substituted alkyl or aryl-NH-C(Z)-, with Z being O, S or NR^a, and, when R_4 is hydrogen, R_5 being selected from the group consisting of R- and S-1-phenylethyl, benzyl, phenylethyl or anilide groups, each said group being unsubstituted or substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino,

halo, C_1-C_{10} haloalkyl, nitro, hydroxyl, acetamido, C_1-C_{10} alkoxy, and sulfonic acid or a salt thereof; or R_5 being benzodioxanemethyl, fururyl, L-propylalanylaminobenzyl, β-alanylaminobenzyl, T-BOC-β-alanylaminobenzyl, phenylamino, carbamoyl, phenoxy or C_1-C_{10} cycloalkyl; or R_5 being a group of the following formula:

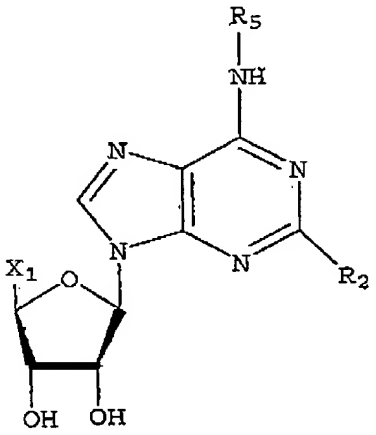


;

or, when R_4 is alkyl, substituted alkyl, or aryl-NH-C(Z)-, then R_5 being selected from the group consisting of substituted or unsubstituted heteroaryl-NR^a-C(Z), heteroaryl-C(Z)-, alkaryl-NR^a-C(Z)-, alkaryl-C(Z)-, aryl-NR-C(Z)- and aryl-C(Z);

or a suitable salt of the compound defined above.

47 (Previously Presented). A method according to Claim 46, wherein said active ingredient is an A3-selective A3RAg that is a nucleoside derivative of the general formula (IV):



(IV)

in which X_1, R_2 and R_5 are as defined in Claim 46.

48 (Original). A method according to Claim 47, wherein said active ingredient is an N^6-benzyladenosine-5'-uronamide.

49 (Previously Presented). A method according to Claim 48, wherein said active ingredient is selected from the group consisting of N^6-2-(4-aminophenyl)ethyladenosine (APNEA), N^6-(4-amino-3- iodobenzyl)adenosine-5'-(N-methyluronamide) (AB-MECA) and 1-deoxy-1-{6-[({3-iodophenyl}methyl)amino]-9H-purine-9-yl}-N-methyl-β-D-ribofuranuronamide (IB-MECA) and 2-chloro-N^6-(3-iodobenzyl)adenosine-5'-N-methyluronamide (Cl-IB-MECA).

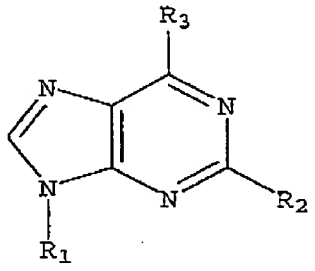
50 (Previously Presented). A method for treating cancer in a subject in need thereof, comprising administering to the subject an amount of an A3-selective adenosine A3 receptor agonist (A3RAg), in a manner such that it exerts its

prime effect through the adenosine A3 receptor, the amount being effective to both selectively inhibit proliferation of cancer cells and to counter toxic side effects of chemotherapeutic drug treatment of the same subject.

51 (Previously Presented). A method according to Claim 50, wherein the A3RAg synergizes with said drug to yield a stronger anti-tumor effect.

52 (Original). A method according to Claim 50, wherein the drug is administered orally.

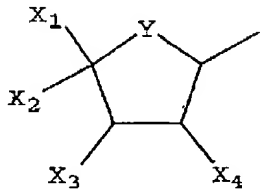
53 (Previously Presented). A method according to Claim 50, wherein said active ingredient is an A3-selective A3RAg that is a nucleoside derivative of the following general formula (I):



(I)

wherein

- R_1 is C_1-C_{10} alkyl, C_1-C_{10} hydroxyalkyl, C_1-C_{10} carboxyalkyl or C_1-C_{10} cyanoalkyl or a group of the following general formula (II):



(II)

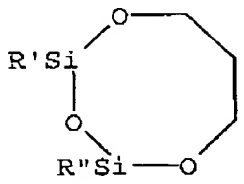
in which:

- Y is an oxygen or sulfur atom or CH_2;

- X_1 is H, C_1-C_{10} alkyl, $R^aR^bNC(=O)$- or HOR^c-, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl or are joined together to form a heterocyclic ring containing two to five carbon atoms, and R^c is selected from the group consisting of C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl;

- X_2 is H, hydroxyl, C_1-C_{10} alkylamino, C_1-C_{10} alkylamido or C_1-C_{10} hydroxyalkyl;

- X_3 and X_4 each independently are hydrogen, hydroxyl, amino, amido, azido, halo, alkyl, alkoxy, carboxy, nitrilo, nitro, trifluoro, aryl, alkaryl, thio, thioester, thioether, -OCOPh, -OC(=S)OPh or both X_3 and X_4 are oxygen connected to >C=S to form a 5-membered ring, or X_2 and X_3 form the ring of formula (III):

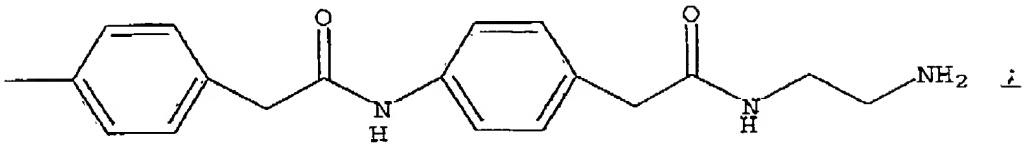


(III)

where R' and R'' are independently C_1-C_{10} alkyl;

- R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkylether, amino, hydrazido, C_1-C_{10} alkylamino, C_1-C_{10} alkoxy, C_1-C_{10} thioalkoxy, pyridylthio, C_2-C_{10} alkenyl; C_2-C_{10} alkynyl, thio, and C_1-C_{10} alkylthio; and

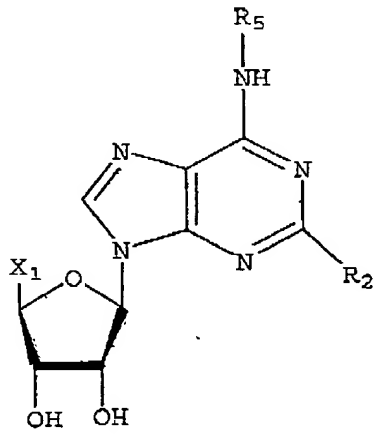
- R_3 is a $-NR_4R_5$ group with R_4 being hydrogen, alkyl, substituted alkyl or aryl-NH-C(Z)-, with Z being O, S or NR^a, and, when R_4 is hydrogen, R_5 being selected from the group consisting of R- and S-1-phenylethyl, benzyl, phenylethyl or anilide groups, each said group being unsubstituted or substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxyl, acetamido, C_1-C_{10} alkoxy, and sulfonic acid or a salt thereof; or R_5 being benzodioxanemethyl, fururyl, L-propylalanylaminobenzyl, β-alanylaminobenzyl, T-BOC-β-alanylaminobenzyl, phenylamino, carbamoyl, phenoxy or C_1-C_{10} cycloalkyl; or R_5 being a group of the following formula:



or, when R_4 is alkyl, substituted alkyl, or aryl-NH-C(Z)-, then R_5 being selected from the group consisting of substituted or unsubstituted heteroaryl-NR^a-C(Z), heteroaryl-C(Z)-, alkaryl-NR^a-C(Z)-, alkaryl-C(Z)-, aryl-NR-C(Z)- and aryl-C(Z);

or a suitable salt of the compound defined above.

54 (Previously Presented). A method according to Claim 53, wherein said active ingredient is an A3-selective A3RAg that is a nucleoside derivative of the general formula (IV):



(IV)

in which X_1, R_2 and R_5 are as defined in Claim 53.

55 (Original). A method according to Claim 54, wherein said active ingredient is an N^6-benzyladenosine-5'-uronamide.

56 (Previously Presented). A method according to Claim 55, wherein said active ingredient is selected from the group consisting of N^6-2-(4-aminophenyl)ethyladenosine (APNEA), N^6-(4-amino-3- iodobenzyl)adenosine-5'-(N-methyluronamide) (AB-MECA) and 1-deoxy-1-{6-[({3-iodophenyl}methyl)amino]-9H-purine-9-yl}-N-methyl-β-D-ribofuranuronamide (IB-MECA) and 2-chloro-N^6-(3-iodobenzyl)adenosine-5'-N-methyluronamide (Cl-IB-MECA).

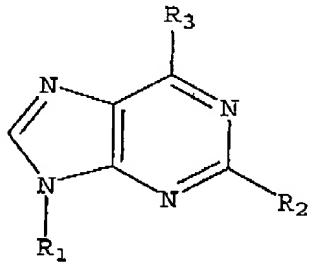
57 (Previously Presented). A method for inhibiting abnormal cell proliferation in a subject, comprising administering to the subject an amount of an adenosine A3 receptor agonist (A3RAg) in a manner such that it exerts its prime effect through the A3 adenosine receptor without essentially activating adenosine receptors other than the A3 adenosine receptor, the amount being effective to selectively inhibit abnormal cell proliferation.

58 (Previously Presented). A method according to Claim 41, wherein said abnormal cell proliferation is the growth or proliferation of tumor cells.

59 (Previously Presented). A method according to Claim 57, wherein the drug is administered orally.

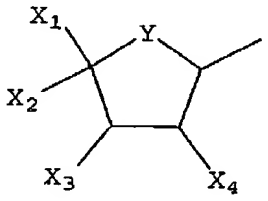
60 (Previously Presented). A method according to Claim 57, wherein the drug is administered in combination with a chemotherapeutic drug.

61 (Previously Presented). A method according to Claim 57, wherein the active ingredient is an A3RAg that exerts its prime effect through the A3 adenosine receptor without essentially activating adenosine receptors other then the A3 adenosine receptor, which is a nucleoside derivative of the following general formula (I):



(I)

wherein R_1 is C_1-C_{10} alkyl, C_1-C_{10} hydroxyalkyl, C_1-C_{10} carboxyalkyl or C_1-C_{10} cyanoalkyl or a group of the following general formula (II):



(II)

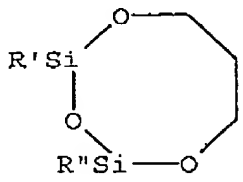
in which:

- Y is an oxygen or sulfur atom or CH_2;

- X_1 is H, C_1-C_{10} alkyl, $R^aR^bNC(=O)$- or HOR^c-, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl or are joined together to form a heterocyclic ring containing two to five carbon atoms, and R^c is selected from the group consisting of C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl;

- X_2 is H, hydroxyl, C_1-C_{10} alkylamino, C_1-C_{10} alkylamido or C_1-C_{10} hydroxyalkyl;

- X_3 and X_4 each independently are hydrogen, hydroxyl, amino, amido, azido, halo, alkyl, alkoxy, carboxy, nitrilo, nitro, trifluoro, aryl, alkaryl, thio, thioester, thioether, -OCOPh, -OC(=S)OPh or both X_3 and X_4 are oxygen connected to >C=S to form a 5-membered ring, or X_2 and X_3 form the ring of formula (III):



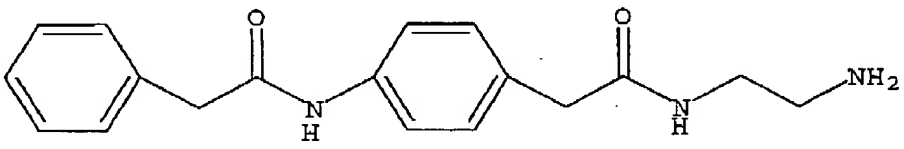
(III)

where R' and R'' are independently C_1-C_{10} alkyl;

- R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkylether, amino, hydrazido, C_1-C_{10}

alkylamino, C_1-C_{10} alkoxy, C_1-C_{10} thioalkoxy, pyridylthio, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, thio, and C_1-C_{10} alkylthio; and

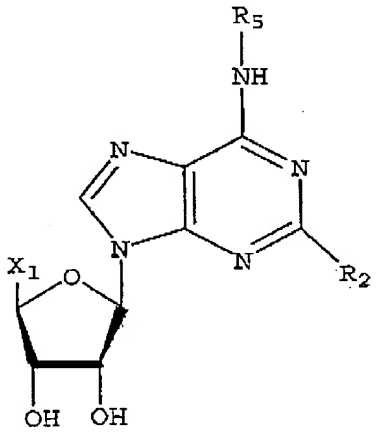
- R_3 is a $-NR_4R_5$ group with R_4 being hydrogen, alkyl, substituted alkyl or aryl-NH-C(Z)-, with Z being O, S or NR^a, and, when R_4 is hydrogen, R_5 being selected from the group consisting of R- and S-1-phenylethyl, benzyl, phenylethyl or anilide groups, each said group being unsubstituted or substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxyl, acetamido, C_1-C_{10} alkoxy, and sulfonic acid or a salt thereof; or R_5 being benzodioxanemethyl, fururyl, L-propylalanyl-aminobenzyl, β-alanylamino-benzyl, T-BOC-β-alanylaminobenzyl, phenylamino, carbamoyl, phenoxy or C_1-C_{10} cycloalkyl; or R_5 being a group of the following formula:



; or, when R_4 is alkyl, substituted alkyl, or aryl-NH-C(Z)-, then R_5 is selected from the group consisting of substituted or unsubstituted heteroaryl-NR^a-C(Z)-, heteroaryl-C(Z)-, alkaryl-NR^a-C(Z)-, alkaryl-C(Z)-, aryl-NR-C(Z)- and aryl-C(Z)-;

or a suitable salt of said nucleotide derivative.

62 (Previously Presented). A method according to Claim 61, wherein said active ingredient is an A3RAg that exerts its prime effect through the A3 adenosine receptor without essentially activating adenosine receptors other then the A3 adenosine receptor, which is a nucleoside derivative of the general formula (IV):



(IV)

in which X_1, R_2 and R_4 are as defined in Claim 61.

63 (Previously Presented). A method according to Claim 62, wherein said active ingredient is an N6-benzyladenosine-5'-uronamide.

64 (Previously Presented). A method according to Claim 63, wherein said active ingredient is selected from the group consisting of N^6-2-(4-aminophenyl)ethyladenosine (APNEA), N^6-(4-amino-3-iodobenzyl) adenosine-5'-(N-methyluronamide) (AB-MECA) and 1-deoxy-1-{6-[({3-iodophenyl} methyl)amino]-9H-purine-9-yl}-N-methyl-β-D-ribofuranuron-amide (IB-MECA) and 2-

chloro-N^6-(3-iodobenzyl)-adenosine-5'-N-methly-uronamide (Cl-IB-MECA).

65 (Previously Presented). A method according to Claim 57, wherein the active ingredient is administered at an amount less than 100 µg/Kg body weight.

66 (Previously Presented). A method according to Claim 65, wherein the amount is less than 50 µg/Kg body weight.

67 (Previously Presented). A method according to claim 15, wherein said active ingredient is selected from the group consisting of:

N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-hydroxyethyladenine;

R—N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

S—N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

N^6-(3-iodobenzyladenin-9-yl)acetic acid;

N^6-(3-iodobenzyl)-9-(3-cyanopropyl)adenine;

2-chloro-N^6-(3-iodobenzyl)-9-methyladenine;

2-amino-N^6-(3-iodobenzyl)-9-methyladenine;

2-hydrazido-N^6-(3-iodobenzyl)-9-methyladenine;

N^5-(3-iodobenzyl)-2-methylamino-9-methyladenine;

2-dimethylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-propylaminoadenine;

2-hexylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-2-methoxy-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-methylthioadenine;

N^6-(3-iodobenzyl)-9-methyl-2-(4-pyridylthio)adenine;

(1S,2R,3S,4R)-4-(6-amino-2-phenylethylamino-9H-purin-9-yl)cyclopentane-1,2,3-triol;

(1S,2R,3S,4R)-4-(6-amino-2-chloro-9H-purin-9-yl) cyclopentane-1,2,3-triol;

(±)-9-[2α,3α-dihydroxy-4β-(N-methylcarbamoyl)cyclopent-1β-yl)]-N^6-(3-iodobenzyl)-adenine;

2-chloro-9-(2'-amino-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-dideoxy-2'-fluoro-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

9-(2-acetyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-2-methanesulfonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3,5-1,1,3,3-tetraisopropyldisiloxyl-β-D-5-ribofuranosyl)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-O-thiocarbonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

9-(2-phenoxythiocarbonyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6-(3-iodobenzyl)adenine;

1-(6-benzylamino-9H-purin-9-yl)-1-deoxy-N,4-dimethyl-β-D-ribofuranosiduronamide;

2-chloro-9-(2,3-dideoxy-β-D-5-methyl-ribofuronamido)-N^6-benzyladenine;

2-chloro-9-(2'-azido-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-benzyladenine;

2-chloro-9-(β-D-erythrofuranoside)-N^6-(3-iodobenzyl)adenine;

N^6-(benzodioxanemethyl)adenosine;

1-(6-furfurylamino-9H-purin-9-yl)-1-deoxy-N-methyl-β-D-ribofuranosiduronamide;

N^6-[3-(L-prolylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(β-alanylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(N-T-Boc-β-alanylamino)benzyl]adenosine-5'-N-methyluronamide

6-(N'-phenylhydrazinyl)purine-9-β-ribofuranoside-5'-N-methyluronamide;

6-(O-phenylhydroxylamino)purine-9-β-ribofuranoside-5'-N-methyluronamide;

9-(β-D-2',3'-dideoxyerythrofuranosyl)-N^6-[(3-β-alanylamino)benzyl]adenosine;

9-(β-D-erythrofuranoside)-2-methylamino-N^6-(3-iodobenzyl)adenine;

2-chloro-N-(3-iodobenzyl)-9-(2-tetrahydrofuryl)-9H-purin-6-amine;

2-chloro-(2'-deoxy-6'-thio-L-arabinosyl)adenine;

2-chloro-(6'-thio-L-arabinosyl)adenine;

N^6-(4-biphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(2,4-dichlorobenzyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-methoxyphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-chlorophenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(phenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(benzylcarbamoylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-sulfonamido-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-acetyl-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((R)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((S)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(5-methyl-isoxazol-3-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(1,3,4-thiadiazol-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-n-propoxy-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-bis-(4-nitrophenylcarbamoyl)-adenosine-5'-N-ethyluronamide; and

N^6-bis-(5-chloro-pyridin-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide.

68 (Previously Presented). A method according to Claim 16, wherein said active ingredient is an A3 selective A3RAg that is selected from the group consisting of those of formula (IV) in which:

X_1 is $R^aR^bNC(O)$, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, and C_3-C_{10} cycloalkyl, R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkyoxy, amino, C_2-C_{10} alkenyl, and C_2-C_{10} alkynyl, and R_5 is selected from the group

consisting of R- and S-1-phenylethyl, an unsubstituted benzyl group, and a benzyl group substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxy, acetamido, C_1-C_{10} alkoxy, and sulfo.

69 (Previously Presented). A method according to claim 68, wherein said active ingredient is an A3 selective A3RAg that is selected from the group consisting of those of formula (IV) in which:

R^a and R^b are the same or different and are selected from the group consisting of hydrogen and C_1-C_{10} alkyl, and R_2 is hydrogen or halo;

R^a is hydrogen, R_2 is hydrogen and R_5 is unsubstituted benzyl;

R^b is C_1-C_{10} alkyl or C_3-C_{10} cycloalkyl and R_5 in R- or S-1-phenylethyl or a benzyl substituted in one or more positions with a substituent selected from the group consisting of halo, amino, acetamido, C_1-C_{10} haloalkyl and sulfo, wherein the sulfo derivative is a salt;

R_2 is a C_2-C_{10} alkyne of the formula R^d-C≡C- where R^d is a C_1-C_8 alkyl; or

R_2 is a halo, C_1-C_{10} alkylamino, or C_1-C_{10} alkylthio, R^a is hydrogen, R^b is C_1-C_{10} alkyl and R_5 is a substituted benzyl.

70 (Previously Presented). A method according to Claim 15, wherein the active ingredient is an A3 selective A3RAg that is in the form of a triethylammonium salt.

71 (Previously Presented). A method according to claim 46, wherein said active ingredient is selected from the group consisting of:

N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-hydroxyethyladenine;

R—N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

S—N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

N^6-(3-iodobenzyladenin-9-yl)acetic acid;

N^6-(3-iodobenzyl)-9-(3-cyanopropyl)adenine;

2-chloro-N^6-(3-iodobenzyl)-9-methyladenine;

2-amino-N^6-(3-iodobenzyl)-9-methyladenine;

2-hydrazido-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-2-methylamino-9-methyladenine;

2-dimethylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-propylaminoadenine;

2-hexylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-2-methoxy-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-methylthioadenine;

N^6-(3-iodobenzyl)-9-methyl-2-(4-pyridylthio)adenine;

(1S,2R,3S,4R)-4-(6-amino-2-phenylethylamino-9H-purin-9-yl)cyclopentane-1,2,3-triol;

(1S,2R,3S,4R)-4-(6-amino-2-chloro-9H-purin-9-yl) cyclopentane-1,2,3-triol;

(±)-9-[2α,3α-dihydroxy-4β-(N-methylcarbamoyl)cyclopent-1β-yl)]-N^6-(3-iodobenzyl)-adenine;

2-chloro-9-(2'-amino-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-dideoxy-2'-fluoro-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

9-(2-acetyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-2-methanesulfonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3,5-1,1,3,3-tetraisopropyldisiloxyl-β-D-5-ribofuranosyl)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-O-thiocarbonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

9-(2-phenoxythiocarbonyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6-(3-iodobenzyl)adenine;

1-(6-benzylamino-9H-purin-9-yl)-1-deoxy-N,4-dimethyl-β-D-ribofuranosiduronamide;

2-chloro-9-(2,3-dideoxy-β-D-5-methyl-ribofuronamido)-N^6-benzyladenine;

2-chloro-9-(2'-azido-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-benzyladenine;

2-chloro-9-(β-D-erythrofuranoside)-N^6-(3-iodobenzyl)adenine;

N^6-(benzodioxanemethyl)adenosine;

1-(6-furfurylamino-9H-purin-9-yl)-1-deoxy-N-methyl-β-D-ribofuranosiduronamide;

N^6-[3-(L-prolylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(β-alanylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(N-T-Boc-β-alanylamino)benzyl]adenosine-5'-N-methyluronamide

6-(N'-phenylhydrazinyl)purine-9-β-ribofuranoside-5'-N-methyluronamide;

6-(O-phenylhydroxylamino)purine-9-β-ribofuranoside-5'-N-methyluronamide;

9-(β-D-2',3'-dideoxyerythrofuranosyl)-N^6-[(3-β-alanylamino)benzyl]adenosine;

9-(β-D-erythrofuranoside)-2-methylamino-N^6-(3-iodobenzyl)adenine;

2-chloro-N-(3-iodobenzyl)-9-(2-tetrahydrofuryl)-9H-purin-6-amine;

2-chloro-(2'-deoxy-6'-thio-L-arabinosyl)adenine;

2-chloro-(6'-thio-L-arabinosyl)adenine;

N^6-(4-biphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(2,4-dichlorobenzyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-methoxyphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-chlorophenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(phenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(benzylcarbamoylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-sulfonamido-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-acetyl-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((R)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((S)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(5-methyl-isoxazol-3-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(1,3,4-thiadiazol-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-n-propoxy-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-bis-(4-nitrophenylcarbamoyl)-adenosine-5'-N-ethyluronamide; and

N^6-bis-(5-chloro-pyridin-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide.

72 (Previously Presented). A method according to claim 53, wherein said active ingredient is selected from the group consisting of:

N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-hydroxyethyladenine;

R-N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

S-N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

N^6-(3-iodobenzyladenin-9-yl)acetic acid;

N^6-(3-iodobenzyl)-9-(3-cyanopropyl)adenine;

2-chloro-N^6-(3-iodobenzyl)-9-methyladenine;

2-amino-N^6-(3-iodobenzyl)-9-methyladenine;

2-hydrazido-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-2-methylamino-9-methyladenine;

2-dimethylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-propylaminoadenine;

2-hexylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-2-methoxy-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-methylthioadenine;

N^6-(3-iodobenzyl)-9-methyl-2-(4-pyridylthio)adenine;

(1S,2R,3S,4R)-4-(6-amino-2-phenylethylamino-9H-purin-9-yl)cyclopentane-1,2,3-triol;

(1S,2R,3S,4R)-4-(6-amino-2-chloro-9H-purin-9-yl) cyclopentane-1,2,3-triol;

(±)-9-[2α,3α-dihydroxy-4β-(N-methylcarbamoyl)cyclopent-1β-yl)]-N^6-(3-iodobenzyl)-adenine;

2-chloro-9-(2'-amino-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-dideoxy-2'-fluoro-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

9-(2-acetyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-2-methanesulfonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3,5-1,1,3,3-tetraisopropyldisiloxyl-β-D-5-ribofuranosyl)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-O-thiocarbonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

9-(2-phenoxythiocarbonyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6-(3-iodobenzyl)adenine;

1-(6-benzylamino-9H-purin-9-yl)-1-deoxy-N,4-dimethyl-β-D-ribofuranosiduronamide;

2-chloro-9-(2,3-dideoxy-β-D-5-methyl-ribofuronamido)-N^6-benzyladenine;

2-chloro-9-(2'-azido-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-benzyladenine;

2-chloro-9-(β-D-erythrofuranoside)-N^6-(3-iodobenzyl)adenine;

N^6-(benzodioxanemethyl)adenosine;

1-(6-furfurylamino-9H-purin-9-yl)-1-deoxy-N-methyl-β-D-ribofuranosiduronamide;

N^6-[3-(L-prolylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(β-alanylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(N-T-Boc-β-alanylamino)benzyl]adenosine-5'-N-methyluronamide

6-(N'-phenylhydrazinyl)purine-9-β-ribofuranoside-5'-N-methyluronamide;

6-(O-phenylhydroxylamino)purine-9-β-ribofuranoside-5'-N-methyluronamide;

9-(β-D-2',3'-dideoxyerythrofuranosyl)-N^6-[(3-β-alanylamino)benzyl]adenosine;

9-(β-D-erythrofuranoside)-2-methylamino-N^6-(3-iodobenzyl)adenine;

2-chloro-N-(3-iodobenzyl)-9-(2-tetrahydrofuryl)-9H-purin-6-amine;

2-chloro-(2'-deoxy-6'-thio-L-arabinosyl)adenine;

2-chloro-(6'-thio-L-arabinosyl)adenine;

N^6-(4-biphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(2,4-dichlorobenzyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-methoxyphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-chlorophenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(phenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(benzylcarbamoylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-sulfonamido-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-acetyl-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((R)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((S)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(5-methyl-isoxazol-3-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(1,3,4-thiadiazol-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-n-propoxy-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-bis-(4-nitrophenylcarbamoyl)-adenosine-5'-N-ethyluronamide; and

N^6-bis-(5-chloro-pyridin-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide.

73 (Previously Presented). A method according to Claim 46, wherein the active ingredient is an A3 selective A3RAg that is in the form of a triethylammonium salt.

74 (Previously Presented). A method according to Claim 53, wherein the active ingredient is an A3 selective A3RAg that is in the form of a triethylammonium salt.

75 (Previously Presented). A method according to Claim 47, wherein said active ingredient is an A3 selective

A3RAg that is selected from the group consisting of those of formula (IV) in which:

X_1 is $R^aR^bNC(O)$, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, and C_3-C_{10} cycloalkyl, R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkyoxy, amino, C_2-C_{10} alkenyl, and C_2-C_{10} alkynyl, and R_4 is selected from the group consisting of R- and S-1-phenylethyl, an unsubstituted benzyl group, and a benzyl group substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxy, acetamido, C_1-C_{10} alkoxy, and sulfo.

76 (Previously Presented). A method according to claim 75, wherein said active ingredient is an A3 selective A3RAg that is selected from the group consisting of those of formula (IV) in which:

R^a and R^b are the same or different and are selected from the group consisting of hydrogen and C_1-C_{10} alkyl, and R_2 is hydrogen or halo;

R^a is hydrogen, R_2 is hydrogen and R_5 is unsubstituted benzyl;

R^b is C_1-C_{10} alkyl or C_3-C_{10} cycloalkyl and R_5 in R- or S-1-phenylethyl or a benzyl substituted in one or more

positions with a substituent selected from the group consisting of halo, amino, acetamido, C_1-C_{10} haloalkyl and sulfo, wherein the sulfo derivative is a salt;

R_2 is a C_2-C_{10} alkyne of the formula R^d-C=C- where R^d is a C_1-C_8 alkyl; or

R_2 is a halo, C_1-C_{10} alkylamino, or C_1-C_{10} alkylthio, R^a is hydrogen, R^b is C_1-C_{10} alkyl and R_5 is a substituted benzyl.

77 (Previously Presented). A method according to Claim 54, wherein said active ingredient is an A3 selective A3RAg that is selected from the group consisting of those of formula (IV) in which:

X_1 is $R^aR^bNC(O)$, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, and C_3-C_{10} cycloalkyl, R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkyoxy, amino, C_2-C_{10} alkenyl, and C_2-C_{10} alkynyl, and R_4 is selected from the group consisting of R- and S-1-phenylethyl, an unsubstituted benzyl group, and a benzyl group substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxy, acetamido, C_1-C_{10} alkoxy, and sulfo.

78 (Previously Presented). A method according to claim 77, wherein said active ingredient is an A3 selective A3RAg that is selected from the group consisting of those of formula (IV) in which:

R^a and R^b are the same or different and are selected from the group consisting of hydrogen and C_1-C_{10} alkyl, and R_2 is hydrogen or halo;

R^a is hydrogen, R_2 is hydrogen and R_5 is unsubstituted benzyl;

R^b is C_1-C_{10} alkyl or C_3-C_{10} cycloalkyl and R_5 in R- or S-1-phenylethyl or a benzyl substituted in one or more positions with a substituent selected from the group consisting of halo, amino, acetamido, C_1-C_{10} haloalkyl and sulfo, wherein the sulfo derivative is a salt;

R_2 is a C_2-C_{10} alkyne of the formula R^d-C=C- where R^d is a C_1-C_8 alkyl; or

R_2 is a halo, C_1-C_{10} alkylamino, or C_1-C_{10} alkylthio, R^a is hydrogen, R^b is C_1-C_{10} alkyl and R_5 is a substituted benzyl.

79 (Previously Presented). A method for inhibiting abnormal cell proliferation in a subject in need thereof, comprising administering to the subject an adenosine A3 receptor agonist (A3RAg) in an amount of less than 100 µg/Kg body weight.

80 (Previously Presented). A method according to Claim 79 wherein the amount of the A3RAg is less than 50 µg/kg body weight.